AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1.   (Previously Presented) A method of processing and reproducing information contained in an information signal in a vector processing computer system, comprising the steps of:

buffering a first data stream into multiple data chunks;

aligning the data chunks such that a first bit of each data chunk is aligned in the same position within multiple respective vectors;

performing convolution sums on each data chunk simultaneously relative to a second data stream, wherein at least one of said first and second data streams pertains to said information signal;

storing the results of the convolution sums of each data chunk as partial solution vectors of an overall solution;

superimposing the partial solution vectors of each of the convolution sums to achieve an overall solution stream of data; and

reproducing information contained in said solution stream of data in a tangible format.

2.   (Original) The method of claim 1, wherein the step of aligning comprises storing the multiple vectors within a single matrix.

3.　　(Original)　The method of claim 2, wherein the vectors comprise column vectors of the single matrix.

4.　　(Original) The method of claim 2, wherein the matrix comprises 64 elements.

5.　　(Previously Presented) The method of claim 1, wherein the first stream of data represents said information signal.

6.　　(Previously Presented) The method of claim 5, wherein the information signal comprises a video signal.

7.　　(Previously Presented) The method of claim 5, wherein the information signal comprises an audio signal.

8.　　(Previously Presented) The method of claim 1, wherein the second stream of data represents said information signal.

9.　　(Previously Presented) The method of claim 8, wherein the information signal comprises a video signal.

10.　　(Previously Presented) The method of claim 8, wherein the the information signal comprises an audio signal.

11.   (Original) The method of claim 1, wherein the second stream of data comprises multiple elements that all have the value of one.

12.   (Previously Presented) The method of claim 1, wherein the second stream of data comprises a data stream having a stride length of 7.

13.   (Original) The method of claim 1, wherein the step of buffering comprises buffering data into multiple data chunks, each data chunk having a length of 8 elements.

14.   (Currently Amended) A system for performing convolution of a first stream of data with a second stream of data in a vector processing computer system, comprising:

means for buffering the first data stream into multiple data chunks;

means for aligning the data chunks such that a first bit of each data chunk is aligned in the same position within multiple respective vectors;

means for performing convolution sums on each data chunk simultaneously;

means for storing the results of the convolution sums of each data chunk as partial solution vectors of an overall solution; [[and]]

means for superimposing the partial solution vectors of each of the convolution sums to achieve an overall solution stream of data[[.]]; and

means for producing an output signal based on the overall solution stream of data.

15.   (Original) A computer readable medium containing a program that executes the following steps:

buffering a first data stream into multiple data chunks;

aligning the data chunks such that a first bit of each data chunk is aligned in the same position within multiple respective vectors;

performing convolution sums on each data chunk simultaneously;

storing the results of the convolution sums of each data chunk as partial solution vectors of an overall solution; and

superimposing the partial solution vectors of each of the convolution sums to achieve an overall solution stream of data.

16.   (Previously Presented) A vector processing system that performs convolution of a first data stream and a second data stream, comprising:

a memory that receives and stores the first data stream in the form of multiple vectors wherein each vector comprises a respective data chunk of the first data stream with the first bit of each data chunk being aligned in the same position within the respective vectors; and

a vector processor that performs a convolution sum on each of said stored vectors simultaneously with respect to said second data stream, to obtain partial solution vectors, and sums the partial solution vectors to obtain a full convolution result.

17.   (Previously Presented) The vector processing system of claim 16, wherein said first data stream comprises a video signal.

18.   (Previously Presented) The vector processing system of claim 16, wherein said first data stream comprises an audio signal.

19.   (Previously Presented) The vector processing system of claim 16, wherein said second data stream comprises a sequence of elements each having a value of one.

20.   (Previously Presented) The method of claim 1, wherein said information signal is an image signal, and said reproducing step comprises display of the processed image.